Pressure sensitive polyacrylate adhesive

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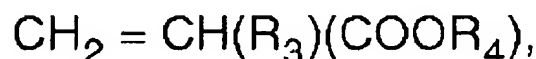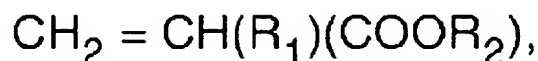- EP1302521 (A3)
- DE10150197 (A1)

Cited documents:

- DE2856009
- EP0317694
- JP63113092

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Abstract of **EP1302521**

Stearic acid-containing, polyacrylate-based pressure-sensitive adhesive material which is homogeneous (with no segments larger than 5 nm) and shows an adhesion to steel of 1.5 N/cm in a layer thickness of 20 g/m<2>, with NOTGREATER 20% change in adhesion after storage for 3 months at 50 degrees C. <??>Polyacrylate-based pressure-sensitive adhesive material (I) containing (at least) a mixture of: <??>(1) a copolymer of <??>(a) 28-93.9 wt% (meth)acrylate esters of formula (1); <??>(b) 5-35 wt% esters of formula (2); and <??>(c) 1.1-7 wt% free (meth)acrylic acid; and <??>(2) 1-10 wt% stearic acid. <??>CH2=C(R1)COOR2 (1) <??>CH2=C(R3)COOR4 (2) <??>R1, R3 = H or methyl; <??>R2 = 1-14C linear or branched alkyl; <??>R4 = alkyl with at least 16 C atoms, or cycloalkyl with at least 9 C atoms <??>Material (I) is homogeneous, with no segments larger than 5 nm; it shows an adhesion to steel of 1.5 N/cm in a layer thickness of 20 g/m<2> and the adhesion shows a change of NOTGREATER 20% after the material has been stored for 3 months at 50 degrees C. <??>An Independent claim is also included for a method for the production of (I) comprising the steps of: <??>(1) polymerizing the above monomer mixture; <??>(2) mixing the polymer with (2) 1-10 wt% stearic acid; <??>(3) adding (iii) 0.1-1 wt% of a polyfunctional thermal crosslinker which reacts with carboxylic acid and/or hydroxyl groups; and <??>(4) crosslinking the mixture.

$$CH_2 = CH(R_1)(COOR_2),$$

$$CH_2 = CH(R_3)(COOR_4),$$